Original Research Article

Experiences of Adolescent Girls and their Midwives on Intrapartum Perineal Trauma in Selected Hospitals in Kumasi Metropolis.

Abstract

Introduction; Adolescent pregnancy and childbearing remain an important global public health concern. Several studies across the globe have enlisted numerous obstetric complications compromising adolescent pregnancy including perineal trauma. Such complications can occur during childbirth leading to increased risk of morbidity and mortality jeopardizing the survival of women and their babies. Significantly young maternal age and first time delivery is seen as the most common cause of Intrapartum Perineal Trauma (IPT). The midwife's responsibility during delivery to prevent perineal trauma is often controversial. However, it is the responsibility of the midwife in guaranteeing that the active phase of the second stage is dawdling to assist prevents the perineum from injury.

Objective; the general objective is to explore the experiences of adolescent mothers and their midwives on birth-related perineal trauma in three selected Hospitals in Kumasi.

Methodology; this work adopted a descriptive case study approach using both quantitative and qualitative methods (mixed methods). This study again adopted a purposive sampling method which is a technique under the non-probability sampling, followed by simple random sampling. The study sample population was made-up of adolescent with vaginal deliveries for not more than 6 months who has experienced any form of intrapartum perineal trauma and midwives working at labour ward. This made it possible to select 6 adolescent girls and 72 midwives. Complete delivery information recorded in the delivery registers at the labour ward from 2017-2018 were also sampled. The data collected using Electronic Data Collection Tool was aggregated into a Microsoft Excel file, cleaned and analyzed with SPSS (version 20). The descriptive statistics were compiled using frequency distribution tables and figures. Associations between variables were tested with correlation and regression analysis under the software Statistical package for Social Scientist. Thematic data analysis was employed for the qualitative aspect (open-ended question) and content analysis. The face-to-face interview with the adolescent was recoded, transcribed and analyzed using content analyses.

Result and Findings; The prevalence rate of adolescent in the calculation of total deliveries is low (16%) but the rate turns to be high (84%) when it's taken in the context of all deliveries with IPT as complications of the second stage of labour. It was also found that 93% midwives were optimistic that, it is important as a practice to repair a perineal tear sustained by the adolescent. It was again found that midwives do not have adequate knowledge on non-pharmacological methods for perineal pain management unlike the high level of knowledge and practice on analgesia. It was also commonly found, that adolescents lack basic information about intrapartum perineal trauma during pregnancy. However, the prominent factor that posed greater likelihood of sustaining IPT was lack of knowledge on perineal trauma. The factors that posed greater likelihood of sustaining IPT were as follows: lack of knowledge on perineal trauma on the side of adolescent, lack of information on delivery positions; uncooperative adolescents;

inadequate midwifery skills on perineal care and lack of value for IPT among adolescents. Poor knowledge in adolescent needs and reproductive health services were also significantly considered as risk factors.

Conclusion; There is the need for a Standard Operating Protocol for the improvement of knowledge and practice regarding prevention and management of perineal tear. Hospitals should prioritize intrapartum perineal trauma and add it to their reports. Adolescent's reproductive health services should be re-established; proactive audit and supervision on IPT established in the hospitals.

Key words; Experiences, Adolescent Girls, Midwives, Intrapartum Perineal Trauma and Kumasi Metropolis.

1.1 **Introduction**

Adolescent pregnancy and childbearing remain an important global public health concern and has been defined as pregnancy in females aged 10-19 years **(**World Health Organization (WHO) 2014). The Ghana Maternal Health Survey, GMHS (2017), mentioned that 20.3 percent of adolescent girls 15-19 years of age already are mothers or pregnant with their first child, although patterns differ across regions and communities. Several worldwide studies have identified numerous obstetric complications affecting adolescent pregnancy, including perineal trauma (Poudel et al. 2018; Yussif et al. 2017). Intrapartum Perineal Trauma (IPT) is any tissue damage to the area between the vagina and the anus during the natural birth of the baby and this can also occur during operative vaginal deliveries (Mora-Hervás et al. 2015).

Spontaneously occurred ones are classified as first- through to fourth-degree lacerations or perineal tears. The first degree perineal tear is damage to the skin including the labia, hymen, fourchette, and the posterior vaginal wall and the second degree involving the fourchette and the superficial muscles (Aguiar et al. 2019; Homer and Wilson 2018; Sánchez-ávila et al. 2018). The third degree also describes in addition to that of first and second any injury to the anal sphincter (muscle controlling the anus), then a fourth-degree tear involves an extension to the anal sphincter and the anal mucosa (the lining of the anus or rectum) jointly called obstetric anal sphincter injuries (OASI), according to Aguiar et al. (2019) and will need repair in the theatre (RCOG 2004). An episiotomy is also another form of perineal trauma but an obstetric intervention performed to reduce severe form of perineal tears (Homer and Wilson 2018; Sánchez-ávila et al. 2018). It is one of the most common experienced by women throughout the world in normal birth (Homer and Wilson 2018). Report from a randomized controlled trial projected that about 70% of women during vaginal delivery shall endure perineal trauma that needs stitching (Kettle et. al. 2002). The main risk factors for intrapartum perineal trauma (IPT) include youth first time pregnancy , number of times a woman has delivered, instrumental delivery, birth weight, protracted second stage labour and the high rates of episiotomies, lack of information and perineal massage; poor pushing technique; and non ANC attendance (Onah and Akani 2005; Owa, Eniowo and Ilesanmi 2015; Çalik et al. 2018).

Insufficient management of IPT may result in serious challenges. Immediate challenges include haemorrhage and puerperal sepsis, which are main causes of death in LMICs, while long - term complications include pelvic floor disorders such as urinary and faecal incontinence, chronic pain, painful sexual intercourse and prolapse (WHO 2018; Çalik et al. 2018; Agbor et al. 2017; Mora-Hervás et al. 2015), with several young women cited as most affected, exposing them to having lower quality of life and self-esteem (Aguiar et al. 2019). Several evidenced based prevention measures have been suggested by many researchers. These include practicing correct maternal position, pushing techniques, perineal massage, perineal warm packs, hands on-hands poised (or off) techniques (Hunter and Bick 2019; Pm and Aghamghar 2018; WHO 2018; Çalik et al. 2018).

Evidence is obvious that perineal injury can mostly result to chronic complications. As a result, midwives have a professional obligation and duty of care to maintain perineum intact or minimize the trauma. The midwife's responsibility during delivery to prevent perineal trauma is often controversial (Moore and Moorhead 2013). However, it is the responsibility of the midwife in guaranteeing that the active phase of the second stage is dawdling to assist prevent the perineum from injury. In the course of their training they are taught to guard the perineum by either applying slight to moderate pressure on the descending fetal head and perineal body to prevent rapid delivery of the head which can cause varying degree of perineal trauma; or by hands-off technique approach which is also associated with a lower risk of episiotomies (Fraser and Cooper 2009).

1.2 Problem Statement

Complications can occur during childbirth leading to increased risk of morbidity and mortality jeopardizing the endurance of mothers and their newborns. To achieve the targets of Sustainable Development Goal 3, international schedules are intensifying their emphasis on ensuring that mothers and their newborns will not just endure the complications of labour if they arise but will have a successful puerperium and healthy live at large (WHO 2018). Evidence have shown that majority of women suffer maltreatment during the time of delivery especially adolescents (Bohren et al. 2019) reflecting in the rate at which adolescent girls who are mostly primiparous, in the process of labour sustain perineal trauma and its consequences across the globe. Young maternal age and first time delivery is seen as the most common cause of IPT according to Aguiar et al. (2019); Shoorab et al. (2019); WHO (2014); and Sanchez-avila et al. (2018). It is important to state that both factors contribute considerably to the haemorrhage and sepsis which have been documented worldwide as direct causes of maternal mortality and morbidity. According to Sanchez-avila et al. (2018) Africa is mostly hit.

Ghana is also counted among developing countries where approximately 12 million girls aged 15–19 years and at least 777,000 girls under 15 years give birth yearly (Darroch, Woog, Bankole and Ashford, 2016; UNFPA, 2015). For example, according to record from the District Health Information Management System, Ghana, DHIMS (2019) there were 23,210 adolescent deliveries in Ashanti region. Manhyia District hospital, Suntreso District hospital and Kumasi South Regional hospital alone recorded 380, 159 and 279 adolescent deliveries respectively. However and surprisingly information on the prevalence of perineal trauma was unavailable on DHIMS and in hospital reports. It is also obvious that adolescent in Ghana and for that matter Kumasi metropolis cannot be dissociated from the evidence that 85% of all births worldwide

sustain perineal trauma and its associated complications (Homer and Wilson 2018). Information gathered from the maternity units in the selected hospitals indicated that about 90% of adolescent deliveries are compromised with perineal trauma with episiotomy forming the bulk of it. This figure is higher than the WHO recommendation of 10% episiotomy in vaginal deliveries (Çalik et al. 2018; WHO 2018). Therefore, maintaining the integrity of the perineum during delivery is partly the responsibility of the birth attendants and midwives. However, it is evidenced that their indiscriminately use of episiotomy and inadequate training on perineal care exposes their clients in labour to sustaining unwarranted perineal trauma for which adolescents are the vulnerable (Bohren et al. 2019; Pm and Aghamghar 2018).

2.0 Methodology

2.1 Study Methods and Design

This study adopted a descriptive case study approach using both quantitative and qualitative methods (mixed methods). This method is used to assess the experience of adolescents and their midwives on perineal trauma at Manhyia, Suntreso and Atonsu Government hospitals in the Kumasi metropolis.

2.2 Study Population

In the context of this study adolescents between the ages of 10 to19 years of age who have had vaginal delivery in the past six months in 2020 according to the information from delivery register are used. The midwives too are selected from among those working in the maternity department of the selected hospitals. Delivery registers for vaginal births for the past three years (2017-2019) are also included in the study.

Table 1: Population of the study

Hospitals	**Respondents**	
	Midwives	Total Adolescent Vaginal Deliveries ≤ 6 months
Manhyia	**86**	137
Suntreso	**92**	74
South	**93**	66
Total	274	275

Source: Authors Own Construct (2020).

2.3.1 Target Population of the Study

The target population comprise of adolescents who have delivered within 6 months through normal vaginal birth in 2020 and sustained IPT; midwives working in the labor ward and completely recorded delivery events over a period of three years in the selected hospitals.

Table 2: Target Population of the Study

Hospitals	Respondents	
	Midwives at Labour Ward	Adolescent Deliveries thru Vaginal ≤ 6 months with IPT
Manhyia	23	96
Suntreso	26	49
South	23	53

Total	72	198

Source: Authors Own Construct (2020).

2.4 Sample Size and Sampling Techniques

Midwives in the labour ward were purposefully selected. Their small number, availability and willingness to participate in the study, despite their cumbersome duties, so they were all selected as respondents for the quantitative study. On the side of the adolescent, there was total number of 198 who experienced the IPT within 6 months of delivery in 2020. Out of the total number of 198, 65% phone contacts did not exist or were incorrect in recording in the delivery register. 20% were also not reachable after several attempts to call. However15% indicating 30 adolescents were reachable but due to the fear and panic from covid-19 pandemic, majority numbering ¾ of the 30 reachable adolescent denied taking part in the study. On the part of the researcher and her fear of contracting the covid-19 during its peak of spread and to avoid the long period of wearing nose mask, conveniently selected 6 of the adolescents (2 from each selected hospital). A total of 28903 vaginal deliveries with completed information recorded in the delivery records from2017-2019 were also purposefully selected for the study.

2.5 Data Collection Techniques and Tools

The study utilized both primary and secondary data. The primary data was collected using structured questionnaires and face-to face interview whiles secondary data was gathered through the review of delivery registers from the selected hospitals. The questionnaires comprised both closed and open-ended items and Likert scale, administered to the midwives. The use of both open and closed offered the researcher the opportunity to probe further and gain the needed information for the study. The open-ended questions further permitted free responses which were recorded in the respondent's own words. It also allowed the researcher to probe more deeply into issues of interest being raised. The researcher approached the midwives during the working period and discussed the purpose of the study to them then implore them to answer the questionnaire. Majority collected the link and downloaded the App and then answered the questionnaire after work. The researcher through Health Information System (HIS) obtained the participants' (adolescent) information including telephone numbers and mode of delivery via HIS except the perineal status. The researcher, contacted the participant and their parents and explained to them the purpose of the research and entreated them to decide on the location and time that will be appropriate for the interviewing. Again the participants were assured of confidentiality and that no one can trace their information to them. The researcher obtained informed consent before interviewing the participants' discreet and private places in their homes. The interviews, took place and lasted for between 30-50 minutes. All covid-19 protocols were strictly adhered to.

2.6 Study Variables

The independent variables of interest are, perineal trauma risk and prevention factors. This was measured using structured questionnaires, interview guide and review of existing information whilst the dependent variable of interest is sustaining perineal trauma and its effect (Outcomes).

2.7 Quality Control Measures and Assumptions

Questionnaires for the study were brief, elaborate and easy to understand. Data collected were checked to guarantee accuracy of the information gathered. To ensure accuracy, a software was

structured to ensure no question needing a response was skipped unanswered. With regards to the interview guides, the interviewers were trained to ensure adolescents were not led on or intimidated whiles interviewing them. The sound of the recorder was clear enough for easy transcribing. Only completely and clearly recorded information in the delivery registers for the period under study were selected. In addition, the research assistants were regularly monitored during the data gathering stages. It is assumed that all respondents recalled their exact experience and gave sincere and precise version of the topic discussed. It is also assumed that the researcher used precise and reliable tool in collecting the data required.

2.8 Pre-testing

A pre-testing was carried out at Suntreso Government Hospital. Under the pretesting 2 adolescents attending postnatal clinic and 5 midwives were selected. They were interviewed and questionnaire administered respectively. This exercise was carried out in order to ascertain the practicality, easy understanding of the questionnaire and the interview items. It also shown the level of clarity, presence of ambiguity which paved way for the necessary corrections to be effected.

2.9 Data Analysis

The data collected using Electronic Data Collection Tool was aggregated into a Microsoft Excel file, cleaned and analyzed with SPSS (version 20). The descriptive statistics were compiled using frequency distribution tables and figures. Associations between variables were tested with correlation and regression analysis under the software Statistical package for Social Scientist. Thematic data analysis was employed for the qualitative aspect (open-ended question) and content analysis. The face-to-face interview with the adolescent was recoded, transcribed and analyzed using content analyses.

2.10 Ethical Considerations

All due processes were followed for ethical approval from the Committee on Human Research Publication and Ethics (CHRPE) of the School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Kumasi. Again the purpose and procedure of the study was clearly explained to the participants in simple Twi language, and consent was obtained without coercion. Participation was purely optional and refusal of participation was welcome. The researcher also ensured application of integrity, confidentiality, secrecy, and privacy of the respondents and participants. These ensured the reliability and validity of the findings.

2.11 Profile of the Study Area

The study was conducted in the Kumasi metropolis, the capital of the Ashanti region. The metropolis according to the 2010 census updated (GSS 2019) the metro is serviced with six Government hospitals within their 5 health district zones, Asokwa, Subin, Bantama, Manhyia North and Manhyia South (Kumasi Metropolitan Assembly 2006). It also habours the second largest teaching hospital in Ghana, Komfo Anokye Teaching Hospital. Figure 3.2 illustrates

these health districts (Ref. to Appendix). However, the study base on purposive sampling selected Manhyia, Suntreso and Kumasi South hospitals.

2.11.1 Manhyia District Hospital

The hospital is located at Ashanti New Town close to the Manhyia Palace having Manhyia, Ashanti Newtown, Krofrom, Aboabo and Asawasi communities as its catchment area. The hospital reported a total number of 380 adolescent deliveries (District Health Information Management System, DHIMS 2019). Information gathered from the hospital showed that in the month of December, 2019 a total of 52 perineal trauma cases including episiotomy was recorded. There are about 86 midwives in the hospital however, 23 are at the labour ward. There are four doctors (two obstetricians and two medical officers) available throughout to review the clients on admission at the maternity unit and manage all the complicated deliveries including instrumental deliveries.

2.11.2 Kumasi South Government Hospital- Asokwa Municipal Area

Kumasi south hospital is located at Chirapatre, within the Asokwa sub-metro having Asokwa, Atonsu, Gyenyase, Esreso, Ahensan and Kaase as its operational area. There are about 92 midwives however, 26 are at the labor ward. The hospital can boast of 2 obstetricians, three medical officers and six house officers at the obstetric and gynecological department to complement the midwives work specially to manage complications. They perform such major procedures as repairing severe perineal tears, vacuum extractions and caesarean sections. In 2019 the hospital reported a total of 276 adolescent deliveries (DHIMS 2019). However, in my observations coupled with interactions with some of the midwives, it was found that, in the month of December, 2019 a total of 47 perineal trauma including episiotomy cases were recorded.

2.11.3 Suntreso Government Hospital

Suntreso Government Hospital is located at North Suntreso in Bantama and can boast of North and South Suntreso, Patasi estate, Kwadaso, Adoato, Asuoyeboa, Breman and Suame as its health zones. There are about 93 midwives, 23 are at the labour ward. The hospital can boast of 3 obstetricians, three medical officers and 4 house officers at the obstetric and gynecological department who review and manage clients especially those with complications. They perform such major procedures as repairing severe perineal tears, vacuum extractions and caesarean sections. In 2019 the hospital reported a total of 159 adolescent deliveries (DHIMS 2019). According to some observations, there was a total of 28 perineal trauma including episiotomy cases was recorded in the month of December, 2019.

It is important to state that these facilities were purposively selected because they have been recording the highest number of adolescent deliveries in the Kumasi Metropolis. They also have number of teams of obstetrician's, pediatricians, and well trained anesthetists, nurses, and midwives available all the time.

3.1 Data Presentation and Analysis

3.1 Introduction

This chapter presents the analysis from two angles, quantitative including data from the delivery register and qualitative. There was 100% response rate for the midwives. However, on the side of the adolescent, convenient sample was employed to select 6 respondents.

3.2 Quantitative Results

This section presents two set of data; the secondary data gathered from the delivery register at the selected hospitals and the field data collected through the administration of questionnaires to the midwives in the three selected hospitals (Manhyia, Suntreso, and Kumasi South). Significantly a total number of 72 midwives were chosen as respondents for the study.

3.2.1 Data from Delivery Register at the Selected Hospitals

Under this data the objective is to explore the trend and prevalence of cases on perineal trauma in the selected hospitals and is introduced by the socio demographic features of mothers. For instance, according to the age distribution of mothers from delivery register, it was found that, per **28,903** mothers, more than two-thirds (93%) of the respondents are in the age group above 20 years and only 1988 (7%) represent the adolescent group (10-19 years). The adolescent group is distributed as 10-14 (0.1%) and 15-19 (6.9%). Table 3 presents these results.

Table 3. Age Distribution of Mothers from Delivery Register

Mothers Age in years		Frequency	Percentage
>20		26,914	93
10-19	15-19	1960	6.9
	10-14	28	0.1
Total		28,903	100

Source: Authors Compilation from 3 Delivery Registers (2020).

According to prevalence rate and trend of IPT among general population (mothers who delivered at the selected hospitals) over a three-year period, Table 4 is computed.

Table 4 Prevalence of IPT for 2017-2019

Variables	Adolescent (10-19years old)	Adult (≥ 20 years old)	General population with a type of IPT
Deliveries	1988(7%)	26914 (93%)	**28903 (100%)**
Episiotomy	586(2%)	1893 (6.6%)	**2479 (8.6%)**
Tear-repaired	593(2.1%)	4445 (15.4%)	**5038 (17.5%)**
Cracks	289(1%)	379 (1.3%)	**668 (2.3%)**
Intact perineum	530 (1.8%)	20,197(69.9%)	**20,717(71.7%)**

Source: Authors Compilation from 3 Delivery Registers (2020).

According to the comparative table, the general population with vaginal delivery is 28,903, which is made up of adolescent (1988) representing 7% and that of adults (26914) representing 93%. Looking at the prevalence rate of IPT from the total deliveries, adolescent has the lowest rate of 5.1% with adults recording the highest rate of 28.4%. This is as a result of greater number of adults (26914) deliveries compared to total adolescent deliveries of 1988.
Out of this total adolescent deliveries of 1988, episiotomy is 586, tear-repaired (593), and cracks (289). These types as presented in the table together forms the IPT for the adolescents. They therefore recorded a total of 1,458 IPT clients compared to 530 deliveries who had intact perineum. Among the 1,458 IPT cases, tear-repaired was 593 representing 40.7% (≈41%), episiotomy was 586 indicating 40.2% (≈40%), whilst the last type, cracks was 279 representing 19.1% (≈19%). The Figure 4.1 presents these prevalence rates.

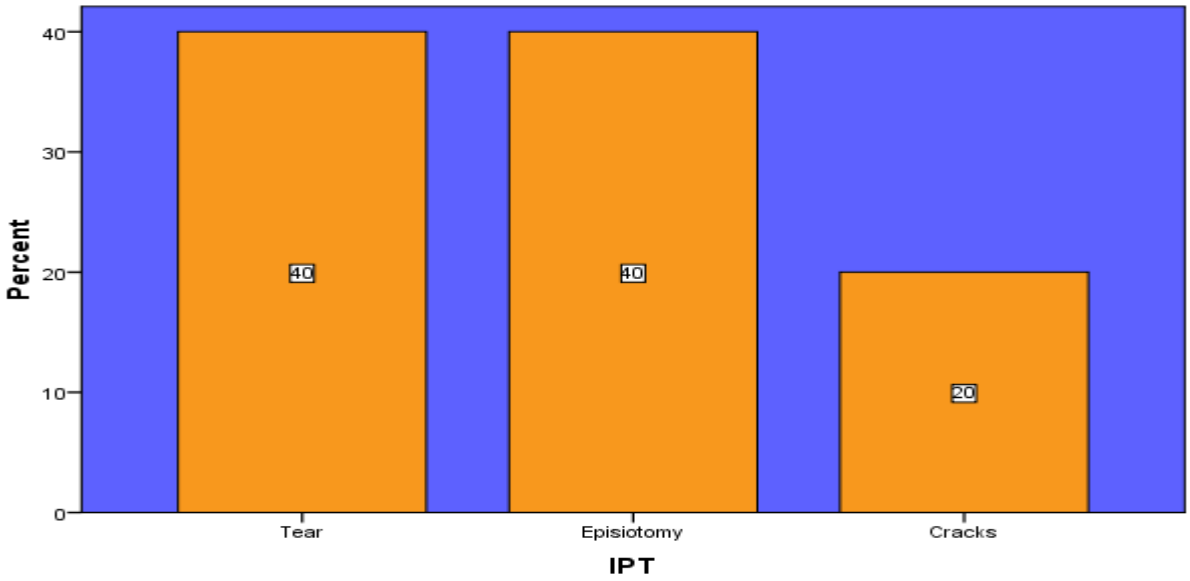
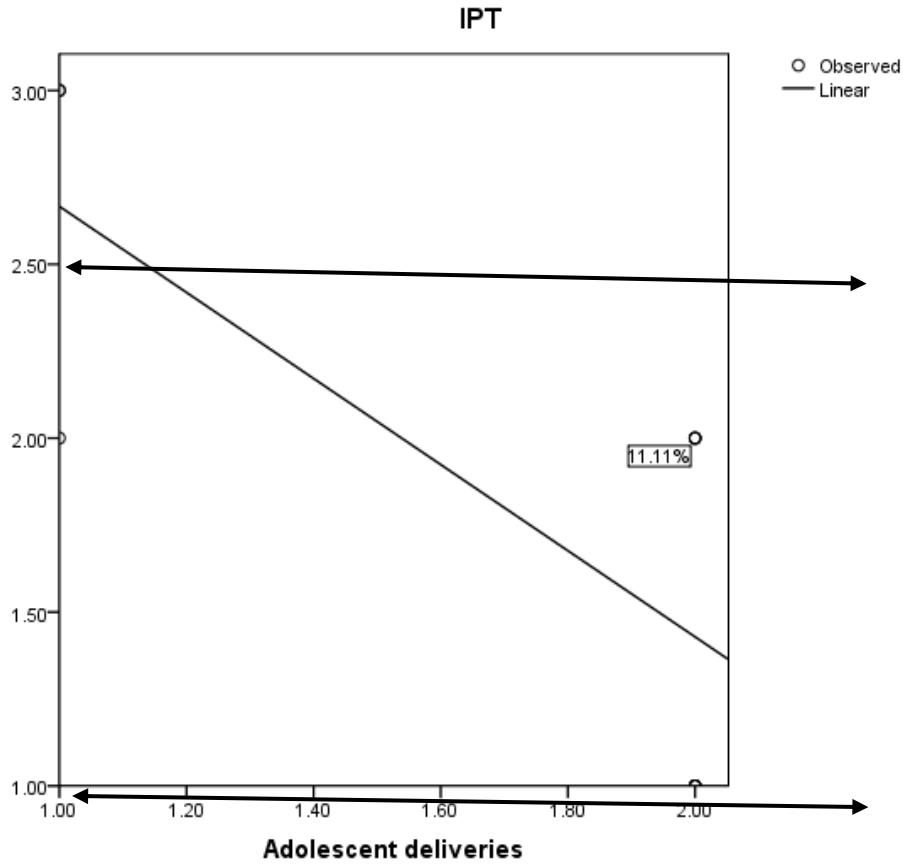


Figure 3.1: Prevalence Rate of Adolescent IPT Cases.
Source: Authors Computation from Delivery Register (2019).
Therefore, out of the 1,988 adolescent deliveries, 1,468 had IPT whilst 520 were intact. This represents 74%, and it's an indication of high prevalence rate of IPT among the adolescent deliveries. Figure 4.2 presents this rate Descriptive P Plot using curve fit.



(Note: each interval on the y axis is 25% and 20% on x axis)

Figure 3.2. Prevalence Rate of Adolescent suffering from IPT.
Source: Authors Computation from Delivery Register (2019).

From the P=Plot figure, the line presents the prevalence rate of adolescent's deliveries with IPT complications. The line descends from left to right but in an increasing manner. This means that, the prevalence rate of adolescent in the calculation of total deliveries is low (1.38 or 19%) because their numbers (1988) compared to adult deliveries (26914) is low however the rate turns to be high (2.67 or 84%) when it's taken in the context of all deliveries with IPT complications. That is prevalence rate of adolescent mothers suffering from IPT is high (84%) compared to Adult mothers suffering IPT (16%). Again the observed small circle indicates that if care is not taken the prevalence rate of adolescent IPT issues might increase by 11.11% each year. There is an excel pictorial presentation of these trends in Figure 3 ad Figure 4.

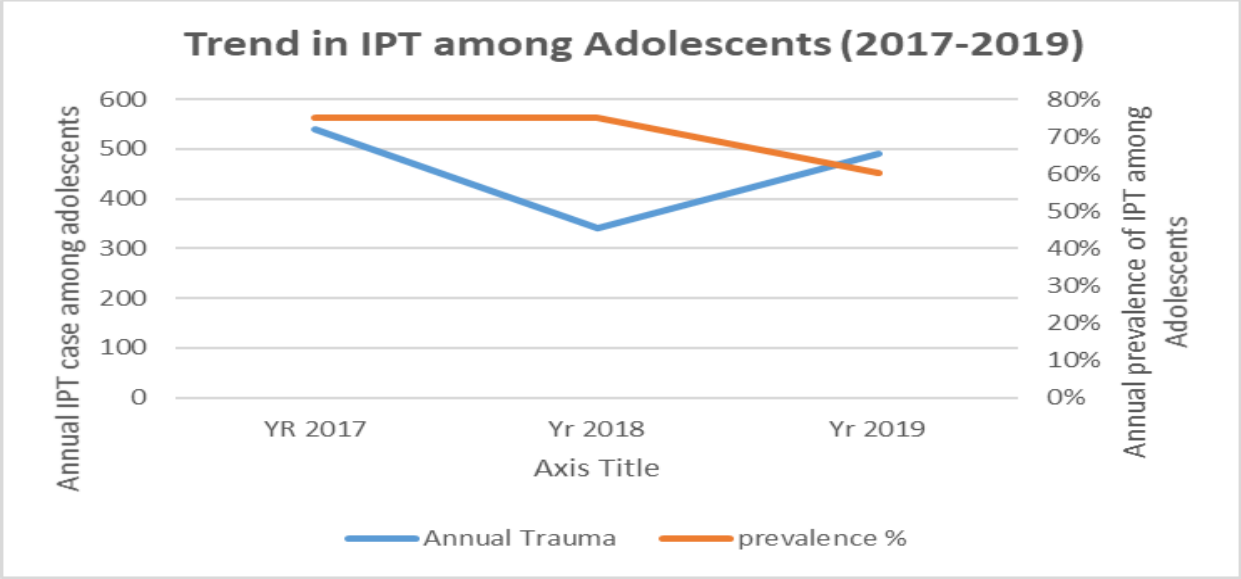


Figure 3.3: Time Trend in the Prevalence of IPT Among Adolescent IPT Cases
Source: Author's Computation from 3 Delivery Registers (2020).

It has been observed from the figures, that the trend of the IPT among the adolescents for the three-year period fluctuates. For example, 2017 had a recorded case of 567 with a prevalence of 79% but dropped to 374 cases but an increased prevalence of 82.2% in 2018. Although there was an observed increase of IPT cases 517 for 2019, the prevalence (63.4%) was rather decreasing. The situation in the adult population is no different. It was observed that in 2017 the adult recorded annual IPT cases of 2445 with a prevalence of 28%. However, the cases this time decreased to 2126 along with a prevalence of 23.4 and slightly increased to 2146 with 23.6 % prevalence rate. Figure 4.4 demonstrate these compares**.**

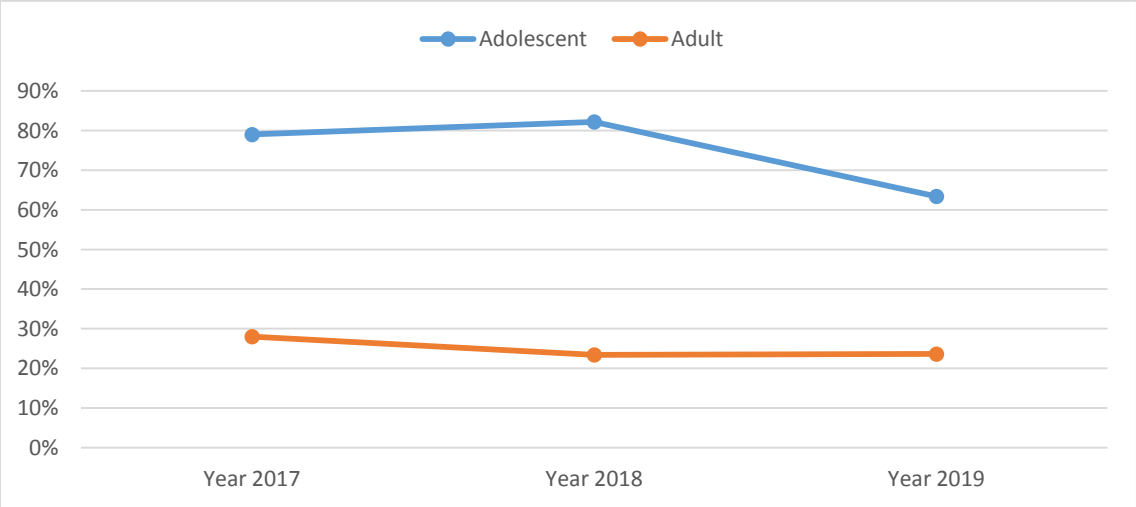


Figure 3.4: Trend of IPT among Adolescents and Adults over 3 years
Source: Author's Computation from 3 Delivery Registers (2020).

3.2.2 Findings from the Midwives

Administration of questionnaires is the tool use to collect data from the selected midwives. That is, to assess the knowledge and practices on prevention and management of perineal trauma among midwives.

3.2.2.1 Demographic and Work Characteristics of Midwives

According to the age characteristics of midwives as presented in the demographic characteristics Table 5, 51% representing 37 midwives were below 30 years and 15% representing 11 midwives were between the ages of 31-35 years, 18% were between the ages of 36-40 years, whilst those above the ages of 40 were 11 midwives representing 15%. Significantly 34 were Staff midwife indicating 47%, 21% were senior staff midwife indicating 29%, 15 were Midwifery officer representing 21% whilst 2 were principal midwifery officers indicating 3%. It was also ascertained that 10% indicating 7 midwives had been practicing the job of midwife for less than 1 year, 40% indicating 29 midwives had been practicing as midwife between 1-6 years, 35% indicating 25 midwives had practice the job for 6-10 years whilst 15% indicating 11 had practice for more than 10 years. It is important to note that majority 63(45%) had Diploma as their highest professional qualification, 25(35%) had Bachelor of Science and 2(3%) had Post graduate degree.

Table 5. Demographic Characteristics of Midwives

Responses	Frequency	Percentage	Responses	Frequency	Percentage
Age in Years			**Highest Professional Qualification**		
Less than/equal to 30	37	51	Diploma	45	63
31-35	11	15	BSc	25	35
36-40	13	18	Post graduate	2	3
40+	11	15	Total	72	100
Total	72	100			
Period of Practicing as a Midwife			**Professional Grade**		
Less than 1 Year	7	10	Staff midwife	34	47
1-6 years	29	40	Senior staff midwife	21	29
6-10 Years	25	35	Midwifery officer	15	21
More than 10 Year	11	15	Senior midwifery officer	2	3
Total	72	100	Total	72	100

Source: Author's Field Data, (2020).

According to the work characteristics of midwives, two major questions were asked. The first question was the number of deliveries conducted by midwives in a month. Out of the total number of midwives interviewed, 6(8%) had less than 10 deliveries, 16(22%) had between 11-20 deliveries, 17(24%) had between 21-30 deliveries whilst 33(46%) had conducted more 30 deliveries. With regards to in-service training on prevention and management of perineal trauma,

majority 57(79%) have not had any in-service training whilst 9(13%) have had in-service training. It is important to add that 6(8%) preferred not to say anything about it.

Table 6. Work Characteristics of Midwives

Responses	Frequency	Percentage	Responses	Frequency	Percentage
Deliveries in a Month			In-Service Training		
Less than 10 deliveries	6	8	Yes	9	13
11 – 20 deliveries	16	22	No	57	79
21 – 30 deliveries	17	24	Preferred not to say	6	8
More than 30 deliveries	33	46	Total	72	100
Total	**72**	**100**			

Source: Author's Field Data (2020).

3.2.2.2 Knowledge on Prevention and Management of Perineal Trauma among Midwives

This section looks at the knowledge level of midwives on perineal trauma using descriptive and inferential analysis. Accordingly, 35 midwives indicating 49% agreed that knowledge on episiotomy is very common, 25(35%) described it as common, 8 (11%) considered it as slight common whilst 4(6%) agreed it to be uncommon. Considering issues of first degree tear majority 43(60%) considered it as very common, 24 (33%) agreed as common, 4(6%) also agreed as slightly common whilst 1(1%) agree as uncommon. With regards to second degree tear, 15(21%) respondents agree to be very uncommon, 38(53%) agree to be common, 16(22%) agree as slightly common whilst 3(4%) described as uncommon. For third degree tear, 5(7%) agree is common, 19(26%) agree is slightly common, 39(54%) agree as uncommon whilst 9(13%) agree to be very uncommon. Also with fourth degree tear, majority 39(54%) agreed to be very uncommon, 20(28%) agreed to be common, 12(17%) agree to be slightly common, whilst one person indicating 1% described it to be very common. Table 7 presents these findings.

Table 7. Knowledge of Midwives on the Perineal Trauma

Statements	Scale			
	1	2	3	4
Episiotomy	35(49%)	25(35%)	8(11%)	4(6%)
First degree perineal tear	43(60%)	24(33%)	4(6%)	1(1%)
Second degree perineal tear	38(51%)	16(22%)	3(4%)	15(21%)
Third degree perineal tear	5(7%)	19(26%)	39(54%)	9(13%)
Fourth degree perineal tear	1(1%)	20(28%)	12(17%)	39(54%)

Source: Author's Field Data (2020).

An inferential approach of the knowledge of midwives on the perineal trauma using regression analysis is generated. Table 8 presents this analysis.

Table 8. Regression Analysis of Knowledge of Midwives on the Perineal Trauma

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
(Constant)	2.6		2.78	0.01
First degree perineal tear	.03	.02	.24	0.81
Second degree perineal tear	.31	.28	1.76	0.08
Third degree perineal tear	-.35	-.31	-2.04	0.05
Fourth degree perineal tear	-.08	-.13	-1.02	0.31

Dependent Variable: Episiotomy, Source: Author's Field Data (2020).

According to the findings of the regression analysis of knowledge of midwives on the perineal trauma, it is found that as shown on the table that, only one of the variables, "the Third degree perineal tear" had significant (sig. or p value) equal to 0.05 ($p \approx 0.05$) which is an indication that the variable has mid-significant impact and for that matter there is an indication that, the level of knowledge of midwives has equal impact on the Third degree perineal tear. On the other hand, those variables with sig. or p values more than 0.05 ($p > 0.05$) is an indication that, the level of knowledge of midwives are insignificant on perineal trauma. For instance the variables; First degree perineal tear had 0.81 that means ($p > 0.05$), Second degree perineal tear had 0.08 which means ($p > 0.05$), and the Fourth degree perineal tear with 0.31 which means ($p > 0.05$).

Another area of concern is the knowledge of midwives on the degree of perineal tear. Under this working objective both frequency and correlation analytical tools are used as demonstrated in Table 6 and 7. Accordingly, certain variables are used to test the knowledge of midwives on the degree of perineal tear as presented in Table 6. It was found that, majority 43 respondents indicating 60% recognized the variable "damage to the skin including the labia, hymen, fourchette, and the posterior vaginal wall" as a first (1^{st}) degree tear. 22 midwives representing 30% considered the same variable as 2^{nd} degree tear, 5(7%) as 4^{th} degree tear and 2(3%) described it as 3^{rd} degree tear.

With respect to the second variable, "Heal naturally and do not usually require stitching"; it was found that majority 70 midwives indicating 97% considered it as 1^{st} degree tear whilst 2(3%) rated it as 2^{nd} degree. "Damage involve the muscle of the perineum as well as the skin" is the third variable. Under this findings majority 43(60%) rated it 2^{nd} degree tear, 21(15%) perceived it 1^{st} degree tear, 9(12%) rated it 3^{rd} degree tear and 5(7%) as 4^{th} degree tear. Again, "always require stitching by the midwife"; majority (89.23%) agree 2^{nd} degree tear while 7.69% agree 1^{st} degree tear and 3.08% agree 4^{th} degree tear. On the side of the variable, "Women recover from this tear within the first week after delivery"; it was found that majority 58(81%) described it as 1^{st} degree tear, 8(11%) rated it agree 4^{th} degree tear whilst the last respondents 6(8%) considered it 2^{nd} degree tear.

Laceration extends beyond fourchette, perineal skin to perineal muscles, fascia, and anal sphincter is another variable. Under this findings, majority 47(65%) considered as 3^{rd} degree tear, 16(22%) considered as 4^{th} degree tear whilst the remaining midwives 9(13%) rated it 2^{nd} degree tear. With regards to "fourchette, perineal skin, vaginal mucosa, muscles, anal sphincter, and rectal mucosa are torn" majority midwives 58 (81%) considered it 4^{th} degree tear with 14

midwives representing 19% rating it 3rd degree tear. Also, the variable "there is greater than 50% tear of the external anal sphincter", it was found that 40 midwives indicating 56% described it as 4th degree tear, 25 midwives representing 35% rated it 3rd degree tear with the remaining midwives 7(10%) rating 1st degree tear.

Table 9. Knowledge of Midwives on the Degree of Perineal Tear

Statements	Scale in Degrees			
	1st	2nd	3rd	**4th**
Damage to the skin including the labia, hymen, fourchette, and the posterior vaginal wall	43(60%)	22(30%)	2(3%)	**5(7%)**
Heal naturally and do not usually require stitching	70(97%)	2(3%)	0	**0**
Undertake repair in theatre except in exceptional cases	(56%)	(56%)	(56%)	**(56%)**
Damage involve the muscle of the perineum as well as the skin	15(21%)	43(60%)	9(12%)	**5(7%)**
Always require stitching by the midwife.	(56%)	(56%)	(56%)	**(56%)**
Women recover from this tear within the first week after delivery.	58(81%)	6(8%)	0	**8(11%)**
Laceration extends beyond fourchette, perineal skin to perineal muscles, fascia, and anal sphincter	0	9(13%)	47(65%)	**16(22%)**
Fourchette, perineal skin, vaginal mucosa, muscles, anal sphincter, and rectal mucosa are torn	0	0	14(19%)	**58(81%)**
There is greater than 50% tear of the external anal sphincter	7(10%)	0	25(35%)	**40(56%)**

Source: Author's Field Data (2020).

Correlation was used to test relationships between knowledge of midwives and the degree of perineal tear among adolescent mothers. This particular type of analysis is useful because it establishes the possible connections between knowledge of midwives and the degree of perineal tear. That is a systematic change in the knowledge of midwives means a systematic change in the degree of perineal tear among adolescent mothers. This presumption mostly depends upon the numerical values measured, being positive or negative. Positive correlation exists if one variable surges concurrently with the other, i.e. the high arithmetical values of one variable relate to the high numerical values of the other. Negative correlation exists if one variable decreases when the other increases, i.e. the high numerical values of one variable relate to the low numerical values of the other. Again on this scale 0 indicates no correlation, hence values closer to zero highlight weaker/poorer correlation than those closer to +1/-1. Besides the variable correlates are statistically significant at 5% ($P<0.005$). Table 9 presents this correlation analysis.

Table 10. Correlations Analysis of Knowledge of Midwives on the degree of Perineal Tear

Independent Variables	ST	EX	SK	DL	SP	MU	AN
Heal naturally and do not usually require stitching (ST)	1.0						
Undertake repair in theatre except in exceptional cases (EX)	-0.2	1.0					
Damage involve the muscle of the perineum as well as the skin (SK)	0.0	-0.2	1.0				
Women recover from this tear within the first week after delivery (DL)	-0.1	0.0	0.0	1.0			
Laceration extends beyond fourchette, perineal skin to perineal muscles, fascia, and anal sphincter (SP)	0.3	-0.2	-0.0	-.10	1.0		
Fourchette, perineal skin, vaginal mucosa, muscles, anal sphincter, and rectal mucosa are torn (MU)	-0.3	-0.1	-0.0	0.0	-0.2	1.0	
There is greater than 50% tear of the external anal sphincter (AN)	-0.0	0.1	0.1	0.1	-0.2	-0.0	1.0
Mean values	**1.0**	**2.0**	**2.1**	**1.4**	**3.1**	**3.8**	**3.4**
Standard deviation	**0.2**	**0.8**	**0.8**	**1.0**	**0.6**	**0.4**	**0.9**

Control Variables: Damage to the skin including the labia, hymen, fourchette, and the posterior vaginal wall (VG).
Source: Author's Field Data (2020).

From Table 9 and according to the control variable, damage to the skin including the labia, hymen, fourchette, and the posterior vaginal wall;

1. There is a positive stronger correlation between the variables; Laceration extends beyond fourchette, perineal skin to perineal muscles, fascia, and anal sphincter and Healing naturally and do not usually require stitching ($r=0.3$, $p<0.05$), There is greater than 50% tear of the external anal sphincter and Undertake repair in theatre except in exceptional cases ($r=0.1$, $p<0.05$), and few others as presented in the table.
2. There is no correlation between the variables;

Damage involving the muscle of the perineum as well as the skin and Healing naturally and do not usually require stitching ($r=0.0$, $p<0.05$), Women recovering from this tear within the first week after delivery and Undertaking repair in theatre except in exceptional cases ($r=0.0$, $p<0.05$), There is greater than 50% tear of the external anal sphincter and Healing naturally and do not usually require stitching ($r= -0.0$, $p<0.05$) and few others as shown in the table.

3. There are also variables that negatively correlate strongly with each other. For instance, undertaking repair in theatre except in exceptional cases and Healing naturally and do not usually require stitching ($r= -0.2$, $p<0.05$), Women recover from this tear within the first week after delivery and Healing naturally and do not usually require stitching ($r= -0.1$, $p<0.05$), Fourchette, perineal skin, vaginal mucosa, muscles, anal sphincter, and rectal mucosa are torn and Healing naturally and do not usually require stitching ($r= -0.3$, $p<0.05$),

These findings imply that any change in any one of these variables will have a stronger positive or negative change in its correlated variable.

One could not complete the cycle on knowledge and awareness level of birth-related perineal trauma among adolescents without stretching on the knowledge of midwives on the perineal trauma with uncomplicated episiotomy. Under this assumption there is a question on what muscle needs to be cut when giving an uncomplicated episiotomy. Certain specific variables are tested using simple frequency analysis as demonstrated in Table 11.

According to the findings, 15 midwives representing 21% selected “ischiocavernosus, 11(15%) selected “bulbocavernosus muscle”, 19(26%) opted for “transverse perineal muscles”, “pubococcygeus muscles” recorded 10(14%), and the last option “external anal sphincter muscles” recorded 17(24%).

Table 11. Muscles Midwives cut when giving an Uncomplicated Episiotomy

Responses	Frequency	Percentage
Ischiocavernosus	15	21
Bulbocavernosus muscle	11	15
Transverse perineal muscles	19	26
Pubococcygeus muscles	10	14
External anal sphincter muscles	17	24
Total	**72**	**100**

Source: Author's Field Data (2020).

In a triangulation approach to the questionnaire item, what muscles do you cut when giving an uncomplicated episiotomy, descriptive statistics is used to test the validity of the responses as already presented in Table 11. According to the findings, it is seen that with a total population of 72, there is minimum and a maximum range of 1 and 5, a mean value of 3.0 and a standard deviation of 1.5. The mean value 3.0 is high when compared to the deviation value of 1.5. This confirms the valid nature and the reliability of the responses given.

3.2.5 Knowledge of Midwives on Factors that Contribute to Perineal Trauma in Adolescents

Under this variable the midwives were asked whether or not any adolescent they have attended to her delivery sustained any perineal trauma? It was found that **o**ut of the total number of 72 midwives' surveyed, majority 67 representing 93% had attended to adolescents who sustained perineal injury during delivery while 5 midwives indicating 7% had not but have witnessed or heard adolescent sustaining perineal trauma.

These midwives irrespective whether they have attended or witnessed were further surveyed on their level of knowledge on the factors that contributes to perineal trauma in adolescents. This helped the researcher ascertain the predisposing factors that make an adolescent sustain perineal trauma. According to this questionnaire item, certain variables were used as the measuring indicators. For instance, with regards to Young maternal age as one of the predisposing factors that make an adolescent sustain perineal trauma, majority 21 indicating 29% were in support. 15 midwives representing 21% each supported "null parity" and "big fetus". Under Malposition of the vertex" and "Previous perineal scar" 9 respondents representing 12% each were in support whilst 3 midwives representing 4% gave priority to routine episiotomy. Table 12 presents these findings.

Table 12. Predisposing Factors of Adolescent to sustain any Perineal Trauma

Responses	Frequency	Percentage
Young maternal age	21	29
Nulliparity	15	21
Big fetus	15	21
Malposition of the vertex	9	12
Previous perineal scar	9	12
Routine episiotomy	3	4
Total	**72**	**100**

Source: Author's Field Data (2020).

In descriptive approach to test the validity of these responses, it was found that out of the total 72 midwives surveyed, there is a minimum and a maximum range of 1 to 5, mean value of 2.7 and a deviation value of 1.5. The mean value of 2.7 in a comparative term with the deviation value of 1.7 confirms the reliability and validity of the findings. The closeness of the gap between the mean and deviation signifies the divergence views of the midwives towards the predisposing factors of adolescent to sustain any perineal trauma.
Considering the factors that can contribute to adolescent sustaining perineal injury during birth, Table 13 was generated.

Table 13. Other Predisposing Factors of Adolescent to sustain any Perineal Trauma

Responses	Frequency	Percentage
Prolonged second stage	16	22
Forceps/vacuum delivery	25	35
Lack of perineal massage	12	17
ANC non-attendance	19	26
Total	**72**	**100**

Source: Author's Field Data (2020).

From the table, majority 25 indicating 35% identified forceps/vacuum delivery" as the highest factor among others. 19 midwives representing 26% identified "ANC non-attendance". 16 midwives representing 22% also opted for prolonged second stage. The remaining respondents 12(17%) also identified perineal trauma.

3.2.2.3 Practices on Prevention and Management of Perineal Trauma

Under this objective, the midwives were asked, whether or not it is so important to repair a perineal tear sustained by the adolescent? It was found that 67 midwives indicating 93% were optimistic that it is important to repair a perineal tear sustained by the adolescent whilst few midwives numbering 5 indicating 7% were not in support of repairing a perineal tear.
Respondents were further asked as presented in Figure 4.4, whether or not analgesia should be used all the time for the repair of perineal trauma in adolescents?

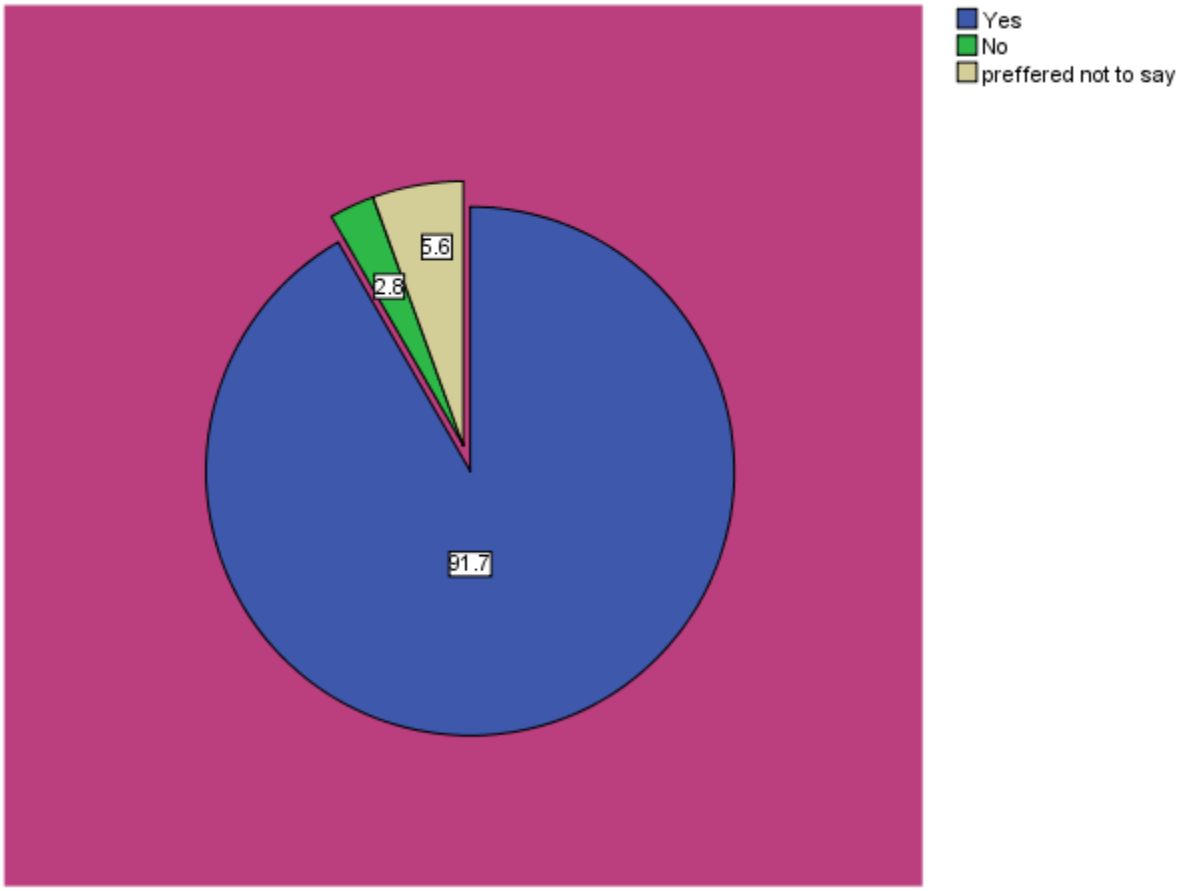


Figure 3.4: Whether or not Analgesia be used all the Time for the Repair of Perineal Trauma in Adolescents?
Source: Author's Field Data (2020).

It was found that 66 midwives representing 92% accepted that analgesia should be used all the time for the repair of perineal trauma in adolescents whilst 2 midwives representing 3% were of different views. However, the remaining respondents 4(5%) were not certain and for that matter preferred not say. Considering the knowledge of midwives' on how birth related perineal trauma can be assessed and managed Table 14 is generated.

Table 14. How well can the midwife diagnose any form of intrapartum perineal trauma sustained by the adolescent?

Responses	Frequency	Percentage
Position woman in the semi-recumbent position	14	19
Ensure privacy	9	12
Seek consent prior to assessment and repair	10	14
Communicate clearly and sensitively	10	14
Ensure adequate analgesia throughout assessment and repair	12	17
Vaginal examination to assess the cervix, vaginal vault, side walls, floor and posterior perineum to note extent of tearing	17	24
Total	**72**	**100**

Source: Author's Field Data (2020).

On the basis of how well can the midwife diagnose any form of perineal trauma sustained by the adolescent, out of the total number of 72 midwives selected, majority 17 midwives representing 24% identified Vaginal examination to assess the cervix, vaginal vault, side walls, floor and posterior perineum to note extent of tearing as the best way to diagnose any form of perineal trauma sustained by the adolescent. The second variable "position woman in the semi-recumbent position" was supported by 14 midwives indicating 19%. 10(14%) each supported "Seek consent prior to assessment and repair" and "Communicate clearly and sensitively". The remaining respondents numbering 9 indicating 12% supported Ensure privacy.

With regards to the advice midwives give their adolescent client on the care of the wound, Table 15 was generated.

Table 15. Midwives Advice to Adolescent Client on the Care of the Wound

Responses	Frequency	Percentage
Maintain high perineal hygiene	12	17
Eat balance diet	7	10
Avoid constipation	10	14
Take your medication as prescribed	3	4
Do not sit on hot water	7	10
Constantly keep the perineum dry	22	30
Report at the postnatal on the 3rd day for review	11	15
Total	**72**	**100**

Source: Author's Field Data (2020).

From the table, 22 midwives indicating 30% advised adolescent to constantly keep the perineum dry, 12(17%) advised adolescent to maintain high perineal hygiene, 11(15%) advised that adolescent report at the postnatal on the 3rd day for review, 10(14%) advised that they avoid constipation, 7(10%) each advised that adolescent Eat balance diet and Do not sit on hot water.

In probing further respondents were asked, who should be necessarily present during the time of giving information on care of the episiotomy wound? Under this questionnaire item Table 16 was generated.

With regards to when the midwife should refer perineal trauma repair sustained by adolescent client to the next level, Table 4.14 is generated.

Table 16 Best Time to Refer Perineal Trauma Repair Sustained by Adolescent

Responses	Frequency	Percentage
When the client is not cooperating	21	29
When the tear is beyond 2nd degree	42	58
When the delivery was done by a student	9	13
Total	**72**	**100**

Source: Author's Field Data (2020).

It was found that 42 midwives representing 58% supported the fact that when the tear is beyond 2nd degree tear midwife can refer perineal trauma repair sustained by adolescent client to the next level. 21 midwives representing 29% decided that the right time to refer perineal trauma repair is when the client is not cooperating. The remaining respondents, 9 midwives indicating 13% suggested that the right time to refer perineal trauma is when the delivery was done by a student.

Concerning how perineal pain resulting from the repair can be relieved during the early postnatal period, Table 17 was generated.

Table 17. Frequent Method Use to Relieve Perineal Pain Resulting from Repairs

Responses	Frequency	Percentage
Ice packs	10	14
Witch-hazel compress	5	7
Analgesia	49	68
Massage the area when bathing	8	11
Total	**72**	**100**

Source: Author's Field Data (2020).

It is important to state that, 49 midwives out of the 72 total respondents indicating 68% support the fact that perineal pain resulting from the repair be relieved during the early postnatal period through Analgesia. 10 respondents indicating 14% supported relieve by applying ice pack. 8 midwives representing 11% described massaging the area when bathing as the best way to relieve perineal pain resulting from the repairs. The last respondents 5 representing 7% decided that Witch-hazel compress should be used to relieve perineal pain during the early postnatal period.

In order to ascertain the reliability of these findings, Reliability test using ANOVA with Friedman's Test was employed. This test indicated Friedman's chi square goodness of fit (67.2%) and a p value of 0.00 ($p<0.05$). With a high variance of 67.2% goodness of fit and significant p value 0.00 is an indication that, the results under the simple frequency is significant, reliable and valid to be used a decision to formulate policies.

Again the scale statistics indicate a mean of 9.0, a standard deviation of 3.1 and a variance of 9.6. That is the high mean value of 9.0 or (90%) and high variance of 9.6 or (96%) compared to 3.1 or (31%) deviation value indicates the validity and reliability of these findings. However the presence of 31% deviation value indicates that, analgesia according to the knowledge and practice of the midwives is the most frequently method of relieving pain resulting from repairs but not the only one considering other methods like messaging the area, witch-hagel compress and ice packs in order of importance. It also confirms the high level knowledge of midwives on analgesia compare to others mentioned earlier. Table 18 presents the evidence of these reliability analysis.

Table 18 Reliability Test Towards The Best Way To Relieve Perineal Pain Resulting From Repairs

Friedman's Chi-Square	**Sig**	**Scale statistics**		
		Mean	Std. Deviation	Variance
67.2	0.00	9.0	3.1	9.6

Source: Author's Field Data (2020).

According to the questionnaire item, "how often should an adolescent who sustained perineal trauma be followed up after discharge", Table 19 is generated.

Table 19. Number of Times to Make Follow-up on Adolescent Who Sustained Perineal Trauma after Discharge

Responses	**Frequency**	**Percentage**
Weekly till satisfied with healing	48	67
During the routine postnatal visit	19	26
As often as the adolescent desire	5	7
Total	**72**	**100**

Source: Author's Field Data (2020).

From the table, 48 midwives indicating 67% supported the fact that adolescent who sustained perineal trauma must be followed up after discharge weekly till satisfied with healing. 19 midwives representing 26% did not specify any specific period but advice that it must be done during the routine postnatal visit. The last respondents numbering 5 indicating 7% advised it should be as often as the adolescent desire.

According to a survey on some of the perineal trauma related complications adolescents mostly face after they have been discharged, Table 20 is generated.

Table 20. Perineal Trauma Related Complications Adolescents Mostly Presented with after Discharged

Responses	Frequency	Percentage
Hemorrhage	1	1.4
Puerperal sepsis	29	40.3
Urinary and faecal incontinence	2	2.8
Persistent pain	20	27.8
Dyspareunia	17	23.5
Uterine prolapse	3	4.2
Total	**72**	**100**

Source: Author's Field Data (2020).

29 midwives indicating 40.3% suggested that Puerperal sepsis are some of the IPT related complications adolescents are mostly presented with after they have been discharged whilst the next majority 20 midwives representing 27.8% rest on Persistent pain. 17 midwives indicating 23.5% also added that Dyspareunia is one of the complications. as one of the related complications Uterine prolapse was suggested by 3 midwives indicating 4.2%. The other respondents, 2 representing 2.8% and 1 indicating 1.4% respectively identified Urinary and faecal incontinence and Hemorrhage as their perception towards perineal trauma related complications for adolescents after discharge. Another survey is carried out on "how confident midwives are in repairing a perineal trauma in an adolescent girl after delivery". Figure 3.5 presents these findings. According to the findings, majority 38 indicating 52% are highly confident that perineal trauma in adolescent girl after delivery can be repaired. 23(32%) are very confident whilst 11(15%) are somewhat confident that perineal trauma in adolescent girl after delivery can be repaired.

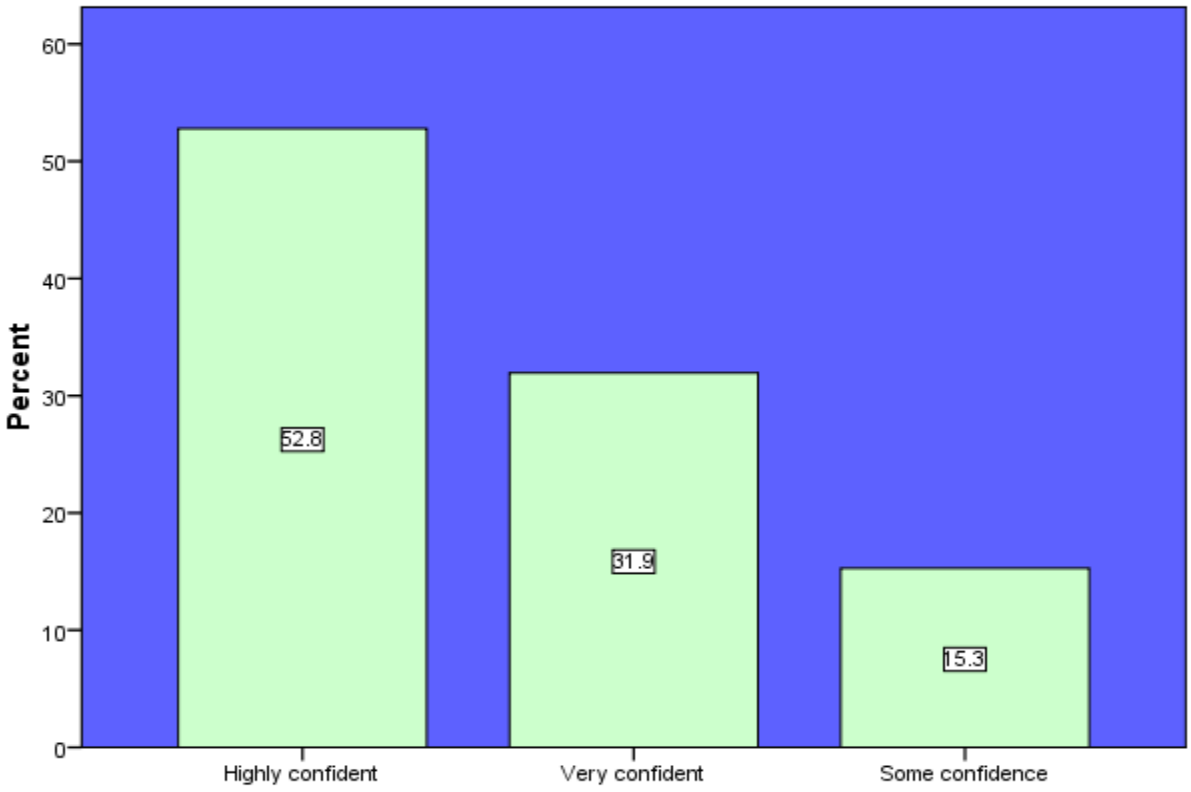


Figure 3.5 Whether or Not Midwives were Confident in Repairing Perineal Trauma in an Adolescent Girl after Delivery? Source: Author's Field Data (2020).

Again respondents were asked, whether or not the practice of perineal trauma prevention can start from ANC? Figure 3.6 presents these findings.

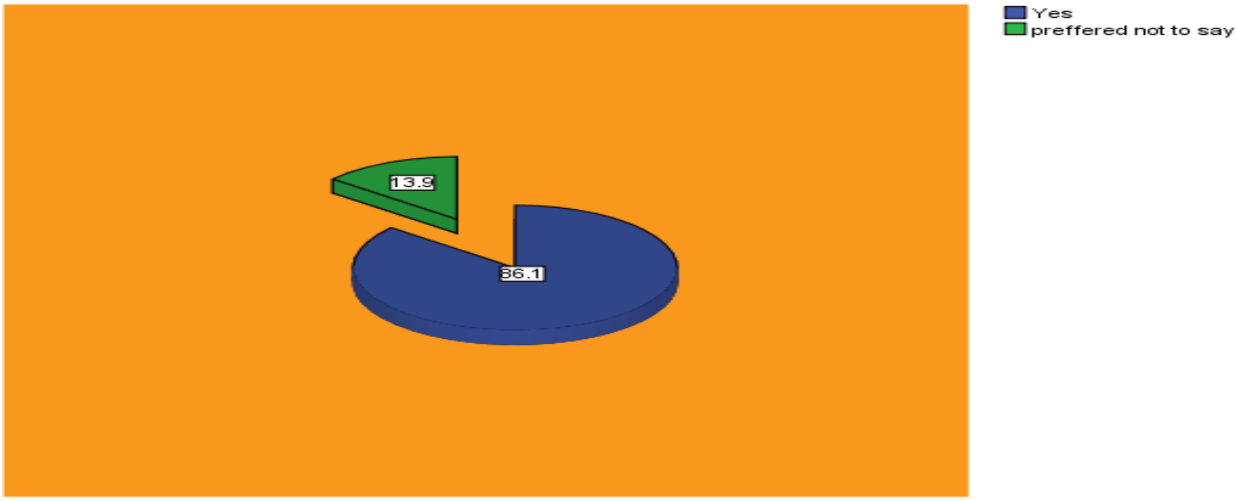


Figure 3.6. Whether or Not the Prevention of Perineal Trauma can start from ANC?
Source: Author's Field Data (2020).

From the figure, 62 midwives representing 86% supported the idea that prevention of perineal trauma can start from antenatal care (ANC) whilst the remaining 10(14%) respondents preferred not to say.
Another survey under this objective is to find reasons why prevention of perineal trauma should start from ANC. With regards to this assumption Table 21 is generated.

Table 21. Reasons why Perineal Trauma Prevention Should start from ANC

Responses	Frequency	Percentage
Perineal exercise to strengthen the perineum is taught	23	32
Positions to adopt in delivery is taught	16	22
Clients are taught to massage the perineum	10	14
Clients are educated on what to expect during labour	23	32
Total	**72**	**100**

Source: Author's Field Data (2020).

From Table 19, 23 midwives representing 32% each supported the idea of starting preventing perineal trauma from ANC due to the fact that perineal exercise to strengthen the perineum is taught and Clients must be educated on what to expect during labour respectively. 16 midwives with a percentage of 22% each also accepted the fact that positions to adopt in delivery must be taught. Clients are educated on what to expect during labour.
The next survey reviews responses on the knowledge of midwives on how birth perineal trauma can be prevented in adolescents during the second stage of labour. Under these findings Table 22

is generated below. With regards to how can perineal trauma be prevented during the second stage of labour, majority 35 midwives representing 49% suggested the approach of guarding the perineum, 27 midwives representing 37% suggests that midwives must ensure maternal cooperation, 5(7%) opted for the need to lubricate the perineum during the second stage, 3(4%) respondents also supported the idea of performing perineal massage during second stage whilst 2(9%) supported the act of performing selective episiotomy.

Table 22. How can Perineal Trauma be Prevented during the Second Stage of Labour?

Responses	Frequency	Percentage
Lubricate the perineum during second stage	5	7
Guard the perineum	35	49
Perform perineal massage during second stage	3	4
Perform selective episiotomy	2	3
Ensure maternal cooperation	27	37
Total	**72**	**100**

Source: Author's Field Data (2020).

3.2.2.5 Reasons why Midwives are Unable to Maintain Intact Perineum in Adolescents

Several worrying reasons were given by midwives as to why they are sometimes unable to manage and prevent IPT among adolescents. Table 22 presents these reasons.

Table 23. Midwives Inability to Manage and Prevent IPT among Adolescents

Responses	Frequency	Percentage
Non-compliance on the part of the adolescents.	43	60
Limited skills and knowledge in IPT prevention	24	33
Lack of in-service training on IPT management and prevention	5	7
Total	**72**	**100**

Source: Author's Field Data (2020).

From the table, majority of the midwives numbering 43 indicating 60% attributed to inability to manage and prevent IPT among adolescents to non-compliance on the part of the adolescents. Other midwives number 24 indicating 33% attributed to limited skills and knowledge in perineal management, whilst the remaining respondents numbering 5 indicating 7% ascribed it to lack of in-service training on IPT management.

Further question was asked regarding what can be done, and the role GHS can play to support the midwife in managing and preventing perineal trauma in adolescents. Table 24 is generated to present these findings.

Table 24. Role of GHS in the Prevention of Perineal Trauma in Adolescents

Responses	Frequency	Percentage
Adolescent Health education on ANC	8	11
Training for midwives on perineal management	34	47
The GHS can support by giving beds etc.	2	3
Increase number of midwives and space	7	10
Restructure adolescent reproductive healthcare services in all health facilities	21	29
Total	**72**	**100**

Source: Author's Field Data (2020).

From the table, few midwives numbering 8 representing 11% proposed the importance of adolescent health education at ANC especially on what to expect during labour. They believe this attempt prevents perineal trauma. 34 midwives representing 47% suggested that GHS can help the prevention of perineal trauma in adolescents by providing in-service training for Training for midwives on perineal management. This training and development is particularly important to increase midwives' knowledge and skills in IPT management and prevention. Another set of midwives numbering 2 indicating 3% also proposed the provision of appropriate delivery beds by GHS. Another group of midwives numbering 7(10%) also supported the idea of increasing the number of midwives and space in the various maternity and labour wards. The remaining midwives 21 representing 29% suggested that GHS can restructure adolescent reproductive healthcare services in all health facilities

3.3 Qualitative Results from Interview conducted on Adolescents Mothers

This section presents the findings and analysis of data collected for assessing the experience of adolescent girls on intrapartum perineal trauma from 6 adolescent mothers whose demographic features has been presented in Table 25.

Table 25. Demographic Features of the 6 Adolescent Mothers

Participant name	Age	Educational status	occupation	Marital status	Age of child	Support person
1	16	SHS Student	unemployed	Single	10 days	mother
2	15	JHS student	unemployed	Single	1 month	mother
3	17	SHS Student	unemployed	Single	3 weeks	mother
4	17	School dropout	unemployed	Co-habitation	5months 3 weeks	mother

5	18	Basic school	Hair dresser	Married	2 months	Mother-in-law
6	19	SSH Student	unemployed	Single	40 days	mother

Source: Authors Own Construct (2020)

According to the demographic features of the 6 adolescent considered as participants of the study, it was found that they all fall within the ages of 15-19 years. On the side of their highest level of education it was found that, 3 out of the 6 were SHS students, a JHS, a basic school and a drop out accordingly. Considering the type of occupational, 5 were unemployed with only one being apprentice at a saloon. Adolescent pregnancy and marital status is very important hence respondents were asked about their marital status. It was found that4 were singles, 1 was married and the last in co-habitation. With regards to the new born babies, out of the 6 babies there were 10 days old, 1 month old, 3 weeks, 5months 3 months, 2 months and 1month 2 weeks old accordingly.

The role of support person in the management of IPT wounds is very critical hence survey was made to know the various support persons to these selected adolescents. From the survey, 5 out of the 6 participants were being cared by their mothers whilst the last one was cared by the mother-in law.

Significantly the experience of adolescent girls on intrapartum perineal trauma as a stated topic discusses the second and third research question of the study;

i. Do adolescents have any prior knowledge on perineal trauma before labour?
ii. What kind of healthcare intervention did the adolescents receive in relation to perineal trauma during labour and puerperium?

The following sub themes are developed from the research questions as presented in Table 26.

Table 26. Qualitative Sub-themes of the Study

THEMES	SUB-THEMES
Awareness on IPT	1-Knowledge on perineal exercise during pregnancy. 2-Prior knowledge of IPT before labour. 3-Impact of prior knowledge of IPT on condition of perineum after delivery.
Healthcare Intervention (Midwives) Received in Relation to IPT	1-Informed consent 2- Pain management 3- Home care of the IPT 4-Experience of psychological and Physical effect of IPT

3.3.1 Adolescent Knowledge on Perineal Exercise during Pregnancy

Under this sub theme. one participant stated that;

> *base on my experience, group education given at the antenatal clinic never included information on exercise to strengthen my perineum.*

One 17-year old participant also shared her experience by saying;

> *When my pregnancy was confirmed at of gestational age of 3months I started ANC because my mother didn't want me to give birth to any abnormal baby so I was regular at*

clinic and never missed an appointment. The midwives never gave any education on exercises to strengthen your perineal muscles even I never heard of what to expect when the baby is to be born. But they taught us other things like balance diet, things to buy for delivery, personal hygiene etc. (participant 4)

Buttressing this further, another participant, 15 years old (the youngest among the participants) also recounted what she has been taught during the few times she when for antenatal clinic.

"Me, I was not a regular attendant but remember the midwife said during my second (last) meeting *we have to do exercise like house chores so we will be strong to deliver. This information from the midwife confirmed the local saying that a pregnant woman should pound lots of fufu, hence during my last month I was pounding fufu from house to house" (participant 2).*

One 19-year participant narrated her experience on how the midwife reluctantly dismissed her request for explanation on exercise in pregnancy:

"I showed the pictures of exercise in the ANC book to the midwife and asked "madam please, are these exercises meant for pregnant women"? Not even looking at my face she said "Awuraa if you wanted to learn how to exercise then you should have come early wae" (participant 6).

3.3.2 Adolescent Prior knowledge of IPT before Labour

All, except one of the participants stated that they had some knowledge on IPT; however, they heard it from sources other than their midwives. Sources included their friends, in movies and literature. Some heard, it was normal complication for every young first time mother; that the midwives will use a blade to cut your vagina; it is very painful, the midwives will suture and you cannot sit after the delivery process for some days. One participant also stated that:

"My friend who had delivered told me that her vagina was cut during delivery and the midwife repaired after the baby was born but it was terribly painful but they will not remove the stitches and you will also go and dress the wound". (participant 4)

Another 18-year participant expresses how the woman in a local documentary lamented on the pain and stress she experienced after delivery because of serious perineal trauma.

"In the documentary the woman was weeping and said something like she sustaining third degree tear and developing complications which has led to her urinating uncontrolled". (participant 5)

One participant did not have any idea at all about IPT until delivery time. She narrates:

"I only got to hear of it when the two midwives attending to my delivery were chatting and said that I am not cooperating so they will by all means cut. Then the other said "she may even teer more mpo", you will also struggle to repair paaaoooooo". (participant 6)

One of the participants disclosed that although she was a regular attendant, she never heard of IPT.

I attended to clinic regularly, the midwives were very friendly and taught us so many things including how you will breastfeed the baby but I never heard them mention anything about IPT. (Participant 1)

3.3.3 Impact of Adolescent Prior Knowledge of IPT on Condition of Perineum after Delivery

Generally, the participants believed that if they had prior knowledge on how to possibly prevent it, they may have comported themselves; ask questions on how to manage it when they could not avoid it occurrence and also emotionally deal with it properly.

One participant narrated that she has not been able to forgive herself after delivery and wish she had aborted because the tear she had will not make her be a complete woman again.

> *"Although I don't know the extent of the wound and why they even sutured my perineum, I would be better off if I had adequate information before delivery so I could ask the midwife some questions and I am sure the answers would have made me more relax and accept myself. If I had gone for abortion my vagina will still be the same size and they won't do any alteration. Hmmmmmm! maybe you will be of help to me now and that is even the reason why I voluntarily join your research". (participant 4)*

Another participant recounts that she would have endured the pain of labour and comport herself to escape the trauma if she had prior knowledge.

> *"I remember the midwife angrily telling me that she will cut my vagina if I don't put my buttocks down as she lifted the scissors and showed me. I tried but the pain, so suddenly she said: Hwe! You think I have your time errhh? Instead of you to be in school you are hear and want to waste my time. I cried and beg her but she caught my vagina. Because we were both angry with each other she never taught me how to manage wound and I was also afraid to ask. Now I don't even know……..? "(participant 3)*

Another participant also underscored how prior knowledge of IPT would have prevented her from developing infected wound. She states:

"After delivery I only realized that the midwife had her hand still in my vagina and felt so much pains as if she was injecting the place. I complained of the pain but she only said she will finish in no time so I should cooperate. I would have asked her a lot of questions on how to take good care of the wound should I priory knew about it". (Participant 1)

3.3.4 Healthcare (midwives) Intervention Received in Relation to IPT

Participants expressed diversity of opinions based on their experience on the way the midwives who attended their delivery treated them. Based on the participants' experiences five sub themes as informed consent; pain management; Antibiotics; information on home care of the IPT and experience of psychological and Physical effect of IPT emerged.

3.3.4.1 Informed and Seeking Consent from the Adolescent

Informed consent describes the patient's decision to have a treatment or procedure which is centered on their full understanding of the treatment or procedure, its benefits, its risks, and any options to the particular treatment or procedure. Principle of autonomy in clinical setting gives the patient the right to give his inform consent before a cut on any part of his body can be done. Surprisingly and unethically, episiotomy, cuts and repairs were carried out on adolescent mothers without their consent. One respondent lamented:

> *"It is as if the midwife owns your vagina and you have no power over your body again. The midwife who conducted my labour was a young girl. Whiles I laid on the delivery bed the old midwife approached the bed and told her that my vagina looks too tight so she should cut but they never informed me or the midwife never requested for my consent. She did it as if my vagina was a piece of meat for her. However, she told me after the*

delivery of the baby that she was going to sew the cut. Hmm! After the delivery she didn't even tell me how long the wound will take to heal but only said I shouldn't sit on hot water and also keep the vagina clean" (participant 2).

Another respondent puts it this way:

"Hwe! When you lie on that delivery bed, you lose you as a woman, the midwife owns your 'pussy'. It becomes the property of the midwife so they do with it as they pleased. I don't even know whether they caught the pussy or the pussy broke on its own and even not sure of how big or small the wound is? Whichever the case, I only know they sew the pussy when after the baby. Now I am not even sure whether it will continue to be normal vagina or not? Just hope..." (participant 4)

3.3.4.2 Adolescent Pain Management

Managing pain is every patient right to provide comfort and also to prevent shock. The midwife has a duty to give pain medication before episiotomy or during repair. However, almost all the six participants except for one claimed they were not given any pain medication either during the cutting, repair and afterwards. Participant 1 lamented when sharing her experience:

"After the baby and the 'after coming' were delivered, I realized the midwife was still fidgeting with my 'under' and madam, I was in pain but anytime I complained she told me she will soon finish. But she was nice to me"

However, during the time when they had to sew again because they said it has opened up, I suffered and not sure I have ever gone through and will ever go through such pain again. Hey!! It was ***sooooo*** *painful. I felt so powerless and weak. Yet she kept scolding and threatened to leave me on the bed and go away. Having so many midwives standing there and also scolding but at a point begged the one attending to me to just try and finish. She kept saying she had giving me pain medication but it was truly painful. I committed no offence but I was treated and felt like a criminal. After they finished I could not walk well nor sit because of the pain but I was not given any medicine for the pain."*

Another participant also had this to say:

"Whiles lying in bed on the ward, the wound was really paining. I tried sitting and huuuus! The pain was terrible. The nurse on that ward was very nice, when I complained to her, she gave me some medicine to put into my anus and told me it will reduce the pain soon. And truly within some few minutes the pain went down". (participant 2)

3.3.4.3 Home Care of the IPT

If the client is not in a critical condition, she is discharged home within 24 hours and if you had perineal trauma, antibiotics and pain medication will be added. Then the client is taught to care for the wound at home and report during the schedule dates. All the 6 participant confirmed being giving information on home care and review on the routine postnatal visits. However, their support persons were not called to be part. A participant expressed her experience that:

"In the morning before I was discharged from the hospital, all those who delivered the previous day were call together and the midwife spoke to us. I remember she said we shouldn't sit on hot water, else the thread will melt; keep the under clean; change the pad when it was wet and eat well. She told us to take our medication as prescribed and report on the 3rd day for review. The problem was that my mother was not there during the education so she wanted me to sit on hot water as the local routine for every new mother.

But when I told her I had a wound that had been sew, she agreed because she also once had the wound when she delivered me". (participant 6)

3.3.4.4 Complications Encountered

The participants complained of mild to moderate physical and psychological effects of the IPT. The physical complications mentioned by the participants' included; painful sexual intercourse, persistent perineal pain and wound infection. The participant described perturbing views including bodily disorders, and ability to maintain a tight perineum for future use. For all the participants the pain was described in milieu to the extent of effect it had on their routine activities such as walking easily, urinating and passing stools, and breastfeeding their babies. Some adolescents gave account of how they were unable to carry out routine motherly roles within the first few weeks due to the pain in the perineum as;

I couldn't even sit properly on the chair or bed. I couldn't even squat or sit on the floor to play and change a diaper (participant 3)

Participant 1 also recounts her ordeal;

"I couldn't go to toilet or urinate and also sit on a chair. I essentially couldn't do anything and basically stood on my feet tired, I could hardly lie down, it was so painful that I just couldn't think of anything else. Yet mum will tell me to endure as a woman and sit well. At the hospital the midwife after repairing my gapped wound did not even bother to write any medication for me too. My child was the one who actually suffered because l could not breastfeed properly for 2 days. Now I somehow hate the child because she is the cause of all this pain I am going through." (participant 1)

It is important to state that, these 6 participants give varying degrees of their account on awareness of IPT prior to labour, and their information collectively confirmed that knowledge in health and lifestyle is power.

4.0 Discussions of Results

4.1 Prevalence of IPT

The general cases of IPT for the three years' period considered (2017-2019) for the study stood at 8089 with a prevalence rate of 28%. The burden of IPT in adult was found to be 6717 cases with a prevalence of 25%. Surprisingly, the adolescents with the lower records of deliveries (1988) were found to have a higher case of IPT (1458) with a prevalence of 73.3%. This seems to be a global phenomenon, because studies have reported higher prevalence of IPT among adolescent than adult mothers. For instance, Sánchez-Ávila et al. (2018) study from Mexico showed that adolescent had a higher prevalence of third and fourth grade tear than their adult women within the African context. Agbor, Mbanga and Njim, (2017) concluded that perineal trauma is common and that in rural Cameroon, adolescents were more likely to sustain Second-fourth degree perineal tears during vaginal deliveries compared with their adult counterparts. Bohren et al. (2019) and Fouelifack, Tameh, Mbong, Nana, Fouedjio, Fouogue and Mbu, (2014) explained that adolescents are more prone to receiving episiotomies than the adult group because they are more vulnerable which the current study confirmed. A total of 586 (7.2%) cases of adolescent with episiotomy were identified with a prevalence burden of 42.7% whiles the adults with cases of 1893 (23.4%) had a prevalence of 28.2%.

4.2 Basic Knowledge and Awareness Level of Birth-Related Perineal Trauma among Adolescents

Findings from the study shows there is a broad consensus among the adolescents that they did not receive any information on the intra-partum perineal trauma during ANC, although some heard of it from their relatives before labour. The respondents further claimed lack of knowledge on exercises or training the perineum, for example, perineal massage during ANC. A recent study by Zaidan et al. (2018) in Saudi Arabia reported that the awareness of episiotomy among pregnant mothers or women in general was very low. Similarly, a study conducted by Jimenez et al. (2010) to assess patient awareness and acceptability of antennal perineal massage reported that only 37% of the respondents had heard about the practice. Their study further showed that adolescents formed the majority of the respondents who did not hear of it despite the fact that they attended ANC regularly. Meanwhile evidence show that midwives can assist women to enhance their psychological and physiological status for childbearing, including educating mothers on approaches that can help minimize perineal trauma at birth but this role is not widely executed (Muda and Hastie 2013).

4.3 Healthcare (midwives) Intervention Adolescents Received in Relation to IPT During Labour and Puerperium

According to UNFPA (2015) once a girl is pregnant, she becomes more prone to abuse because people surrounding her fail to defend her rights, especially her right to protection from all forms of mistreatment. This assumption is not surprising because it was confirming in this study that, almost all the participants reported that their right to informed consent was taken away from them in health care issues making them feel less important in the whole process. It was realized that one respondent was not even aware of her condition of been giving episiotomy and repaired until the research team met her. These findings again confirm with the findings of Bohren et al. (2019) who argues that pregnant adolescents are more likely to be abused or mistreated by healthcare professionals because of their vulnerability, and rejection by the immediate close family members.

Disrespectful and undignified care has been recorded by several studies to be predominant in many facility settings globally, principally for vulnerable populations like pregnant adolescent, and this does not only violate their human rights but also an important obstacle to accessing obstetric care services. Again, health care givers globally conform to an intrapartum care model, which empower them to have control over the process delivery, hence, may expose seemingly healthy pregnant women to needless medical interventions that interfere with the physiological process of childbirth (WHO 2018). Relatively, the findings in the current study shows adolescent mothers within the selected hospitals were robbed off their right to informed consent and somehow given interventions that were not needed as episiotomy because of their vulnerability by age, absence of support person and financial difficulties. This current finding also reveals that adolescents perceived midwives as very powerful individuals who have the authority to decide what happens to the mother during the birthing process and as such cannot be questioned. Thus describing the birthing process as a military camp where you obey before complain. This affirms WHO (2018) report on denial of informed consent especially with adolescent pregnant women. A report from Spain also indicates that women hassled the fact that during labour their care providers perform manoeuvres and techniques such as episiotomies to deliver their babies without their consent and without receiving any explanation of the manoeuvre or the medical

reason for it (Rodríguez-Almagro et al. 2019). The story is not different in Brazil and Viet Nan where episiotomy is often performed on women without the woman's knowledge or consent, and often without good reason (Trinh et al. 2015; Diniz and Chacham 2004). In contrast, 88.5 % of the midwife respondents claimed that seeking the consent, communicating clearly and sensitively to the adolescents before assessing and repair of perineal trauma is paramount and seen as part of their routine practice.

Generally, the study findings revealed some quite fulfilling accomplishment by adolescents when there was a broad consensus that they attended ANC and postnatal review sessions as scheduled. The current study findings also revealed that participants were giving instructions on care of the perineal wound, however, their support persons were not available during their education. The availability of the support persons during the time of education and instruction on how to manage the wounds is crucial to avoid providing contrasting home measures. An example is where a girl who was sutured and instructed not to sit on hot water by the midwives was being forced by the mother to sit as she explained was a long traditional practice that has been effective. Therefore, birth educators and delivery practitioners need to be aware of adolescents' needs. The family's needs and how the adolescent fits into that family must also be considered when planning and providing care for the adolescent (Sauls 2004).
An interesting finding in this study was that majority of the adolescents stated they never experienced an extended arm of pain medication during labour, repair of the tear or episiotomy and after the repair. Meanwhile the midwives (90.79 %) per their knowledge and practices emphasized that adequate analgesia to be maintained throughout assessment and repair of any kind of IPT. The motive for this happening is exposed to rumor. It could be anticipated that pain medication was not offered perhaps intense physical support was being offered and that there was no need for pain medication. Another option may be that the adolescent appeared seemingly uncomplaining while silently feeling unmet needs regarding pain. And even more disturbing possibility would be the midwife's discriminatory or judgmental behavior toward pregnant adolescents as reported by the previous studies (Bohren et al. 2019; WHO 2018; and UNFPA 2015). Meanwhile this current study finding is not different from what Corretti and Desai (2018) claim that midwives have knowledge on drugs used for labour pain management, however, they do not often provide analgesics and non-pharmacological care were also inadequate due to increased workload. Unfortunately, most of the midwives professed labour pain as normal and encouraged women to bear pain. The participants complained of mild to moderate physical and psychological effects of the IPT. Such physical complications as painful sexual intercourse, urine incontinence, persistent perineal pain and wound infection. These findings as well is not different from the several studies reporting on the physical and psychological complications of IPT (Shoorab et al. 2019; Çalik et al. 2018; WHO 2018; Agbor et al. 2017). The findings from this research have highlighted the complex physical and psychosocial impact, and the difficulties faced by adolescents who experience IPT during vaginal birth. While current literature focuses on the morbidities that women experience as a result of IPT (Schmied et al. 2014) the women in this study focused not only on the morbidities but also on how they were treated during the birth, the suturing process and the postpartum period.

4.4 Knowledge and Practices of Midwives on Management and Prevention of IPT

Findings from the study showed that 95% of the midwives have had an adolescent sustain IPT. This wasn't surprising because the reports from the delivery registers from the selected hospitals reveals a higher prevalence of 73.3% of all adolescent deliveries resulted in IPT creating an impression that it is an inevitable situation among adolescents. The midwives from practice mentioned that the adolescent they cared for sustained IPT due to the following causes: young maternal age; nulliparity; lifting of buttocks; poor delivering positions; poor pushing techniques; routine episiotomy and non-ANC attendant.

Exception of the buttocks lifting, all other causes mentioned by the midwives resonate with the existing literatures like Aguiar et al. (2019); Çalik, Karabulutlu and Yavuz (2018); and Agbor et al. (2017). Midwives accept the responsibility of repairing an episiotomy because it is the midwife decision and also claim that midwives are more expert than obstetricians in cutting and repairing episiotomy (Piro and Ahmed 2016). The findings of this current study support Piro and Ahmed (2016) study in that about 100% midwives interviewed for the study agreed that it is their responsibility to repair perineal trauma and are very confident in doing so. This study finding again reverberate that of Bick et al. (2012) in their position that perineal repair is an essential midwifery skill for normal birth.

It was realized that midwives in this study provided pain medication to their adolescent client during perineal examination and suturing were not just within the milieu of clinical skills development but also, use their own intuition at times to get the client cooperating. Fraser et al. (2004) in their seminal text book for midwives, noted that it is the role of midwives to help the woman maintain control of pain during childbirth. A randomized trial on midwifery care procedures in the second stage of labour and lessening of perineal injury during delivery revealed that one most important part of the responsibilities of the midwife during puerperium is to counsel and help mothers to relieve post perineal trauma pain (Albers, 2005). However, adolescent participants recalled otherwise. For example, one adolescent participant expressed her experience in the following way: after the baby and the 'after coming' were delivered, I realized the midwife was still fidgeting with my 'under' while I was in so much pain. The wound was really painful and terrible!! This expression by an adolescent participant is congruent with Aziato et al. (2017) findings, which showed that most women go through so much pain during delivery because the midwives do not regularly administer analgesia.

Regarding the knowledge for managing IPT pain, findings from this current study demonstrated that midwives have low level of evidence based non-pharmacological methods of managing perineal pain following delivery. For example, concerning how perineal pain resulting from the repair can be relieved during the early postnatal period, a significant number (68.1%) of the midwives thinks analgesia is the only way to do that. Whiles only 31.9 % supported the idea that the non-pharmacological methods of pain relieve including applying ice packs, witch-hazel compress and massaging the area when bathing can be used to relieve the adolescent perineal pain after perineal repair. A study by Aziato et al. (2017) showed that most midwives are either not aware or knowledgeable in non-pharmacological methods for pain management during and after birth.

As to how to manage the wound after discharge, the study revealed some impressive findings.

All the midwives interviewed claim that in practice they gave their adolescent client adequate instructions on the care of the perineal wound including maintaining high perineal hygiene; eating balance diet; avoiding constipation; taking their medication as prescribed; not to sit on hot water; constantly keeping the perineum dry and report at the postnatal clinic on the 3rd day for

review. This was collaborated by adolescent participants interviewed. Clinically, such information is crucial for speeding the healing of the wounds and the associated pains (Albers 2005). However, abiding by the instructions became difficult for the adolescents because they are not independent and the parents who will make most of the decisions concerning their care were not invited during the period of education. This resulted in some of the adolescents practicing otherwise leading to gaping and infection of their wounds.

Most obstetric text books outline certain key competence for midwives: principles for prevention of pelvic floor damage and perineal tears; indications for performing an episiotomy; principles supporting the practice for repair of perineal tears and episiotomy; skills to perform an episiotomy and to repair first and second degree perineal or vaginal tears as entranced in the International Confederation of Midwives (ICM) guidelines for midwives (Morris et al., 2013). These principles have underpinned the training of midwives in Ghana (Fraser, Cooper and Nolte, 2006). However, the majority (18.46%) of the midwives' respondent for this study felt they do not have the adequate knowledge and skills in managing and preventing IPT. An extensive systematic review of literature by Morris et al. (2013), reported similar findings, where healthcare professional confessed they have insufficient knowledge and training is managing and preventing IPT.

5.0 Summary, Conclusions and Recommendations

5.1 Summary

This section consists of quantitative and qualitative analysis

5.1.1 Quantitative Results

There were 1,468 IPT cases, and among them tear-repaired was 40.4% (≈40%), episiotomy was 39.9% (≈40%), whilst the last type, cracks was 19.7% (≈20%). The prevalence rate of adolescent in the calculation of total deliveries is low (16%), however the rate turns to be high (84%) when it's taken in the context of all deliveries with IPT complications. Some of these complications adolescents experience include puerperal sepsis, persistent pain, urinary and faecal incontinence, dyspareunia, hemorrhage, and uterine prolapse. It is important to note that majority of the midwives attributed their inability to prevent IPT to non-compliance on the part of the adolescents, followed by limited skills and knowledge in perineal management, and lack of in-service training on IPT management on the part of the midwives. It was again found that the majority of the midwives were Staff midwife, had been practicing as midwife between 1-6 years, and had conducted more than 30 deliveries and most especially agreed that episiotomy is the commonest IPT. However, despite the greater number of deliveries majority 79% have not had any in-service training. Despite the limitation on their in-service training, they have reasonable knowledge on the Third degree perineal tear" compared to First degree perineal tear, second degree perineal tear, and Fourth degree perineal tear. Although 93% are optimistic that it is important as a practice to repair a perineal tear sustained by the adolescent, another majority considers "natural healing without stitching"; as 1st degree tear and further admitted that the practice of using analgesia must be adhered to all the time because it relieves pain during the early postnatal period. These midwives listed the following muscles in order of importance in an uncomplicated episiotomy; "transverse perineal muscles", "external anal sphincter muscles, ischiocavernosus, bulbocavernosus muscle", and "pubococcygeus muscles.

According to the predisposing factors they listed in order of significance: Young maternal age, "null parity" and "big fetus", Malposition of the vertex" and "Previous perineal scar", routine episiotomy and considered in order of important forceps/vacuum delivery, ANC non-attendance, prolonged second stage, and perineal trauma as other predisposing factors. Upon such factors, they listed the following in order of importance as preventive measures during the second stage of labour: approach of guarding the perineum, ensuring maternal cooperation, lubricating the perineum during the second stage, performing perineal massage during second stage and performing selective episiotomy.

Considering the knowledge of midwives' on how birth related perineal trauma can be assessed and managed majority identified vaginal examination to assess the cervix, vaginal vault, side walls, floor and posterior perineum to note extent of tearing as the best way to diagnose any form of perineal trauma sustained by the adolescent, followed by the positioning woman in the semi-recumbent position and few others. These midwives in order of significant advice that adolescent constantly keep the perineum dry and also maintains high perineal hygiene and desist from sitting on hot water. It was also found that adolescent who sustained perineal trauma are followed up after discharge weekly till satisfied with healing followed by routine postnatal visit. Importantly 86% majority supported the idea that the practice of perineal trauma prevention can start from ANC. They gave the reasons that, at ANC adolescent are taught on how perineal exercise can strengthen the perineum and few others. Besides in-service training, GHS can support the midwife in managing and preventing perineal trauma in adolescents through restructuring adolescent reproductive healthcare services in all health facilities, adolescent health education at ANC, increase the number of midwives and space in the various maternity and labour wards and provide appropriate delivery beds by GHS.

5.1.2 Qualitative Results from Interview conducted on Adolescents Mothers

It was found that 5 out of the 6 were being cared for by their mothers whilst the last one by the mother-in law. Although some claim they were taught on other things like balance diet, things to buy for delivery, personal hygiene and exercises like doing house chores, they lack the basic knowledge on perineal exercise during pregnancy. Notwithstanding the one who had some level of knowledge heard it from friends, and movies other than a midwive. Considering the impact of adolescent prior knowledge of IPT on condition of perineum after delivery, the participants believed that if they had prior knowledge on how to possibly prevent it, they may have comported themselves; ask questions on how to manage it and how to avoid it occurrence and again emotionally deal with it properly.

It was found that episiotomy, cuts and repairs were carried out on adolescent mothers without their consent. Again all the six participants except for one claimed they were not given any pain medication either during the cutting, repair and afterwards. They also confirmed that, they are given information on home care and review on the routine postnatal visits. However, their support persons were not called to be part. The participants again complained of mild to moderate physical and psychological effects of the IPT. They listed; painful sexual intercourse, persistent perineal pain and wound infection and inability to move independently and freely and also to perform basic parenting responsibilities in the first few weeks due to the perineal pain.

5.2 Conclusions

In considering the objectives of the study, the findings identified two groups of insightful findings; from the adolescents and the midwives. From the adolescents, the study found that: there was a higher prevalence (73.3%) IPT among adolescents as compared to their adult group and that reported in other studies; the trend is fluctuating with 0.1% increase in 2018 and 15% decrease in 2019. almost all the adolescents interviewed were not aware of IPT before delivery, as such did not have any knowledge on the management and prevention of IPT; Adolescents were routinely given episiotomy and their right of autonomy trampled upon; adolescents faced complications as prolonged perineal pain, sepsis, painful sexual intercourse.

The factors that posed greater likelihood of sustaining IPT were as follows: lack of knowledge on perineal trauma on the side of adolescent, lack of information on delivery positions; uncooperative adolescents; inadequate midwifery skills on perineal care and lack of value for IPT among adolescents. Poor knowledge in adolescent needs and reproductive health services were also significantly considered as risk factors. On the part of midwives, the study demonstrated that over 90% of the midwives interviewed demonstrated that there is important gap in the knowledge and practice on evidenced based prevention and management of intrapartum perineal trauma among midwives; they do not have adequate knowledge on non-pharmacological methods for perineal pain management unlike the high level of knowledge and practice on analgesia; overwhelming majority of the midwives regarded episiotomy as a normal practice that should be routinely carried out on adolescent mothers.

5.3 Recommendations

It is proposed that prior knowledge of the preventive measures of the IPT could have reduced adolescent risk of sustaining any of the trauma and its impact on their lives. Majority of the midwives also recommended that midwives need further training (in-service training) to improve their knowledge and skills in the area. Given that midwives experience barriers to providing ample care, the GHS should be organizing periodic in-service training to educate them about needs of all age groups and design mentally specific helpful interventions for the adolescent. This approach would permit them to give the type of reassuring care their adolescent clients need. The low awareness calls for orientation of healthcare practitioners, especially midwives, about the technique, so that they can also educate adolescents about perineal trauma. There is the need for a Standard Operating Protocol for the improvement of knowledge and practice regarding prevention and management of perineal tear. Hospitals should prioritize intrapartum perineal trauma and add it to their reports. Adolescent's reproductive health services should be re-established with proactive audit and supervision.

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